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| APPLICATION NO.           | FILING DATE                        | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---------------------------|------------------------------------|----------------------|---------------------|------------------|
| 10/756,169                | 01/13/2004                         | Marshall S. Wenrich  | 13241US04           | 2110             |
|                           | 7590 04/02/200<br>S HELD & MALLOY, | EXAMINER             |                     |                  |
| 500 WEST MA               | DISON STREET                       | BEISNER, WILLIAM H   |                     |                  |
| SUITE 3400<br>CHICAGO, IL | 60661                              |                      | ART UNIT            | PAPER NUMBER     |
|                           |                                    |                      | 1797                |                  |
|                           |                                    |                      |                     |                  |
|                           |                                    |                      | MAIL DATE           | DELIVERY MODE    |
|                           |                                    |                      | 04/02/2008          | PAPER            |

# Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| Office Action Summary   |  | Applica  | tion No.  | Applicant(s)   | Applicant(s) |  |  |  |
|---|--|--|---|--|--------------|--|--|--|
|   |  | 10/756   | ,169  | WENRICH, MARSHALL S.   |              |  |  |  |
|   |  | Examin   | er  | Art Unit   |              |  |  |  |
|   |  | WILLIA   | M H. BEISNER  | 1797   |              |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply   |  |  |   |  |              |  |  |  |
| A SHO<br>WHICH<br>- Extensi<br>after SI<br>- If NO p<br>- Failure<br>Any rep  | RTENED STATUTORY PERIOD F<br>IEVER IS LONGER, FROM THE Nons of time may be available under the provisions<br>X (6) MONTHS from the mailing date of this comeriod for reply is specified above, the maximum si<br>to reply within the set or extended period for reply<br>by received by the Office later than three months<br>patent term adjustment. See 37 CFR 1.704(b). | MAILING DATE OF to 6 of 37 CFR 1.136(a). In no nunication. atutory period will apply and will, by statute, cause the a | THIS COMMUNICATION event, however, may a reply be some sufficient will expire SIX (6) MONTHS from the polication to become ABANDO | ON. timely filed om the mailing date of this one of the control (35 U.S.C. § 133). | ·            |  |  |  |
| Status  |  |  |   |  |              |  |  |  |
| 2a)⊠ T<br>3)□ S   | Responsive to communication(s) file this action is <b>FINAL</b> . Since this application is in condition losed in accordance with the pract  | 2b)⊡ This action is<br>for allowance exce  | rnon-final.<br>pt for formal matters, p   |  | e merits is  |  |  |  |
| Dispositio  | n of Claims  |  |   |  |              |  |  |  |
| 5)□ C<br>6)⊠ C<br>7)□ C<br>8)□ C  | Claim(s) <u>1-35</u> is/are pending in the above claim(s) is/action is/action is/action is/action is/action is/action is/action is/are allowed. Claim(s) <u>1-35</u> is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restrict is action is action.   | re withdrawn from o  |   |  |              |  |  |  |
| Applicatio  | n Papers   |  |   |  |              |  |  |  |
| 10)□ TI<br>A<br>R   | ne specification is objected to by the drawing(s) filed on is/are pplicant may not request that any objected to a property drawing sheet(s) including the oath or declaration is objected to the specific property of the specific property.   | : a) ☐ accepted or ction to the drawing(sg the correction is req   | ) be held in abeyance. Suired if the drawing(s) is  | See 37 CFR 1.85(a).<br>objected to. See 37 C                                       |              |  |  |  |
| Priority un   | der 35 U.S.C. § 119  |  |   |  |              |  |  |  |
| <ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul> |  |  |   |  |              |  |  |  |
| 2) Notice (3) Informa   | of References Cited (PTO-892) of Draftsperson's Patent Drawing Review (I of Disclosure Statement(s) (PTO/SB/08) No(s)/Mail Date  | PTO-948)   | 4) Interview Summa Paper No(s)/Mail 5) Notice of Informa 6) Other:  |  |              |  |  |  |

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#### **DETAILED ACTION**

## Claim Rejections - 35 USC § 103

- 1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
  - 1. Determining the scope and contents of the prior art.
  - 2. Ascertaining the differences between the prior art and the claims at issue.
  - 3. Resolving the level of ordinary skill in the pertinent art.
  - 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- 3. Claims 1-3, 10, 21-25 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alford et al.(WO 03/024214 or US 2003/0054540 or US 6,677150) in view of McKelvey et al.(EP 0 376 763) and Bacchi et al.(US 5,285,657).

The references of Alford et al. disclose a portable apparatus (See Figures 1 and 2) for maintaining an ex vivo organ in a viable condition for transplantation. The apparatus includes an organ container (8) including an interior space for receiving an organ to be transported; a bubble remover (11) having a headspace and venting valve (12); an oxygenator (21) having a chamber for receiving perfusion fluid, a gas space for receiving oxygen, and a gas exchange interface allowing gas exchange between the chamber and the gas space (See paragraphs [0049]-[0050] of

'540); a perfusion loop (See Figure 1) including the container inner space, the bubble remover headspace and the oxygenator interconnect to provide fluid circulation; a pump (4) configured for circulating a perfusion fluid through the perfusion loop; and an outer container (1,2) sized and configured to contain the organ container (8), the bubble remover (11), the oxygenator (21), the perfusion loop, the pump (4) and a supply of oxygen (17) in an operative position (See Figure 2).

Claim 1 differs by reciting that the perfusion loop including the organ container, bubble remover and oxygenator are movable into and out of the outer container and into and out of an operative relationship with the pump while the perfusion loop remained closed.

The reference of McKelvey et al. discloses that it is known in the organ perfusion art to provide a closed perfusion loop in a sterile manner such that it can be removed as a unit (31) from an outer container (30).

The reference of Bacchi et al. discloses that it is known in the organ perfusion art to provide a removable circuit (60) with allows the circuit to be movable into and out of an outer container (10) and into and out of an operative relationship with the pump (31) while the circuit remains closed.

In view of these teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the construction of the system of the primary references of Alford et al. such that the perfusion loop can be removed from the outer container as suggested by the reference of McKelvey et al. and allowing the loop to be removed from an operative relationship with the pump as suggested by the reference of Bacchi et al. for the known and expected result of allowing the loop to be moved between containers and/or locations while

remaining in a sterile condition and while allowing the pump to be reused and/or remain with the outer container.

With respect to claim 2, the reference of Alford et al. discloses the use of tubing (19) to connect the elements of the device and the reference discloses the use of peristaltic pump (24).

With respect to claim 3, the reference discloses the use of temperature regulator (6).

With respect to claim 10, the temperature regulator (6) is in heat-exchange contact with the organ container (8) (See Figure 2).

With respect to claims 21, 25, 31 and 32, any of the elements listed above are considered to be capable of being disposed of after a single use. Note statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 22, the reference of Alford et al. discloses the use of tubing (19) to connect the elements of the device. Also, any of the elements listed above are considered to be capable of being disposed of after a single use. Note statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 23, the reference of Alford et al. discloses the use of pump (24).

With respect to claim 24, any of the components of the device can be disposed of or reused. Note statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 30, the reference of Alford et al. discloses the use of a cover (9) including an adaptor (7) and quick connect-disconnect coupling (5).

With respect to claim 33, the organ container (8), bubble remover (11) and oxygen container (21) are mechanically joined (See Figures 1 and 2).

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With respect to claim 34, the references of McKelvey et al. and Bacchi et al. both disclose the use of a support member (See element 31 of McKelvey et al. and element 600 of Bacchi et al.). As a result, it would have been obvious to one of ordinary skill in the art to provide the system of modified primary reference with a support structure for the known and expected result of facilitating the removal of the loop from the outer container.

4. Claims 3-9 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alford et al.(WO 03/024214 or US 2003/0054540 or US 6,677,150) in view of McKelvey et al.(EP 0 376 763) and Bacchi et al.(US 5,285,657) taken further in view of Olympus (JP-01-261301).

The combination of the references of Alford et al., McKelvey et al. and Bacchi et al. has been discussed above.

Claims 3-9 differ by specifying the use of a specific temperature regulation system that includes heat exchange fluids, tubes and a Peltier device to regulate the temperature of the perfusion loop.

The reference of Olympus discloses that it is known in the art of organ perfusion to employ a coolant (19) in heat exchange communication with the perfusion loop and to employ a Peltier device (15).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the temperature control taught by the reference of Olympus in the system of the primary reference for the known and expected result of providing an art recognized means for providing temperature control of the perfusion loop system.

With respect to claim 4, if the tubes of the perfusion loop do not meet this claim, it would have been obvious to one of ordinary skill in the art to provide heat exchange tubes in the system for the known and expected result of increasing the surface area for heat exchange between the perfusion fluid and heat exchange fluid.

With respect to claims 5 and 6, the Peltier device (15) is capable of heating or cooling the perfusion fluid.

With respect to claims 7-9, the system of Olympus discloses the use of a temperature controller (20) which is capable of being programmed as indicated in the claims. Also it would have been well within the purview of one having ordinary skill in the art to employ the device for cooling during storage and/or transport of the organ and warming of the organ prior to implantation.

With respect to claim 35, the reference of Olympus discloses the use of a coolant and cooling vessel (See the English language abstract).

5. Claims 11-20 and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Alford et al.(WO 03/024214 or US 2003/0054540 or US 6,677,150) in view of McKelvey et al.(EP 0 376 763) and Bacchi et al.(US 5,285,657) taken further in view of Owen et al.(US 6,673,594).

The combination of the references of Alford et al., McKelvey et al. and Bacchi et al. has been discussed above.

Claims 11 and 12 differ by reciting that the device includes a reservoir with a temperature regulator.

The reference of Owen et al. discloses that it is conventional in the art of organ perfusion to provide the perfusion system with a reservoir (10) that includes a temperature regulator (30a).

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In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the primary reference with a reservoir system as suggested by the reference of Owen et al. for the known and expected result of providing a source of additional perfusion fluid that can be added to the perfusion loop and maintained at the required temperature conditions.

Claims 13-16 differ by reciting that the device includes a processor for controlling the perfusion conditions within the device.

The reference of Owen et al. discloses that it is conventional in the art of organ perfusion to provide the perfusion device with a processor that can be programmed by the user (See column 13, lines 23-41; and column 15, lines 24-44).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the primary reference with a processor for the known and expected result of automating the operation of the device.

Claims 17-20 differ by reciting that the device includes a processor controlled venting system.

The reference of Owen et al. discloses that it is conventional in the art of organ perfusion to provide the perfusion device with an air venting system that operates in conjunction with a bubble detection and removal system (See column 14, lines 34-61; column 18, lines 11-21).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the device of the primary reference with the bubble detection, removal and gas venting

system suggested by the reference of Owen et al. for the known and expected result of automating the removal of gas or bubbles from the perfusion loop.

Claims 26-29 differ by reciting that the device includes a radio frequency identification tag installed on the organ container and associated reader wherein the tag is used to program the control processor.

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The reference of Owen et al. discloses that the use of a radio tag and reader are known in the art of organ perfusion (See column 13, lines 23-41).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the device of the primary reference with a radio tag system suggested by Owen et al. for the known and expected result of providing a means recognized in the art for allowing the organ to be remotely monitored and/or data to be transferred for further use and/or control.

#### **Double Patenting**

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1-3, 10, 21-25 and 30-34 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,677,150 in view of McKelvey et al.(EP 0 376 763) and Bacchi et al.(US 5,285,657).

Claims 1-25 of U.S. Patent 6,677,150 encompass a device that is substantially the same as that instantly claimed except Claim 1 differs by reciting that the perfusion loop including the organ container, bubble remover and oxygenator are movable into and out of the outer container and into and out of an operative relationship with the pump while the perfusion loop remained closed.

The reference of McKelvey et al. discloses that it is known in the organ perfusion art to provide a closed perfusion loop in a sterile manner such that it can be removed as a unit (31) from an outer container (30).

The reference of Bacchi et al. discloses that it is known in the organ perfusion art to provide a removable circuit (60) with allows the circuit to be movable into and out of an outer container (10) and into and out of an operative relationship with the pump (31) while the circuit remains closed.

In view of these teachings, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the construction of the system of the primary references of Alford et al. such that the perfusion loop can be removed from the outer container as suggested by the reference of McKelvey et al. and allowing the loop to be removed from an operative relationship with the pump as suggested by the reference of Bacchi et al. for the known

and expected result of allowing the loop to be moved between containers and/or locations while remaining in a sterile condition and while allowing the pump to be reused and/or remain with the outer container.

With respect to claim 2, the reference of Alford et al. discloses the use of tubing (19) to connect the elements of the device and the reference discloses the use of peristaltic pump (24).

With respect to claim 3, the reference discloses the use of temperature regulator (6).

With respect to claim 10, the temperature regulator (6) is in heat-exchange contact with the organ container (8) (See Figure 2).

With respect to claims 21, 25, 31 and 32, any of the elements listed above are considered to be capable of being disposed of after a single use. Note statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 22, the reference of Alford et al. discloses the use of tubing (19) to connect the elements of the device. Also, any of the elements listed above are considered to be capable of being disposed of after a single use. Note statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 23, the reference of Alford et al. discloses the use of pump (24).

With respect to claim 24, any of the components of the device can be disposed of or reused. Note statements of intended use carry no patentable weight in apparatus-type claims.

With respect to claim 30, the reference of Alford et al. discloses the use of a cover (9) including an adaptor (7) and quick connect-disconnect coupling (5).

With respect to claim 33, the organ container (8), bubble remover (11) and oxygen container (21) are mechanically joined (See Figures 1 and 2).

With respect to claim 34, the references of McKelvey et al. and Bacchi et al. both disclose the use of a support member (See element 31 of McKelvey et al. and element 600 of Bacchi et al.). As a result, it would have been obvious to one of ordinary skill in the art to provide the system of modified primary reference with a support structure for the known and expected result of facilitating the removal of the loop from the outer container.

8. Claims 3-9 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,677,150 in view of McKelvey et al.(EP 0 376 763) and Bacchi et al.(US 5,285,657) taken further in view of Olympus (JP-01-261301).

Claims 3-9 differ by specifying the use of a specific temperature regulation system that includes heat exchange fluids, tubes and a Peltier device to regulate the temperature of the perfusion loop.

The reference of Olympus discloses that it is known in the art of organ perfusion to employ a coolant (19) in heat exchange communication with the perfusion loop and to employ a Peltier device (15).

In view of this teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the temperature control taught by the reference of Olympus in the system encompassed by the patented claims for the known and expected result of providing an art recognized means for providing temperature control of the perfusion loop system.

With respect to claim 4, if the tubes of the perfusion loop do not meet this claim, it would have been obvious to one of ordinary skill in the art to provide heat exchange tubes in the system for the known and expected result of increasing the surface area for heat exchange between the perfusion fluid and heat exchange fluid.

With respect to claims 5 and 6, the Peltier device (15) is capable of heating or cooling the perfusion fluid.

With respect to claims 7-9, the system of Olympus discloses the use of a temperature controller (20) which is capable of being programmed as indicated in the claims.

9. Claims 11-20 and 26-29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,677,150 in view of McKelvey et al.(EP 0 376 763) and Bacchi et al.(US 5,285,657) taken further in view of Owen et al.(US 6,673,594).

Claims 11 and 12 differ by reciting that the device includes a reservoir with a temperature regulator.

The reference of Owen et al. discloses that it is conventional in the art of organ perfusion to provide the perfusion system with a reservoir (10) that includes a temperature regulator (30a).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the patented claims with a reservoir system as suggested by the reference of Owen et al. for the known and expected result of providing a source of additional perfusion fluid that can be added to the perfusion loop and maintained at the required temperature conditions.

Claims 13-16 differ by reciting that the device includes a processor for controlling the perfusion conditions within the device.

The reference of Owen et al. discloses that it is conventional in the art of organ perfusion to provide the perfusion device with a processor that can be programmed by the user (See column 13, lines 23-41; and column 15, lines 24-44).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the system of the patented claims with a processor for the known and expected result of automating the operation of the device.

Claims 17-20 differ by reciting that the device includes a processor controlled venting system.

The reference of Owen et al. discloses that it is conventional in the art of organ perfusion to provide the perfusion device with an air venting system that operates in conjunction with a bubble detection and removal system (See column 14, lines 34-61; column 18, lines 11-21).

In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the device of the patented claims with the bubble detection, removal and gas venting system suggested by the reference of Owen et al. for the known and expected result of automating the removal of gas or bubbles from the perfusion loop.

Claims 26-29 differ by reciting that the device includes a radio frequency identification tag installed on the organ container and associated reader wherein the tag is used to program the control processor.

The reference of Owen et al. discloses that the use of a radio tag and reader are known in the art of organ perfusion (See column 13, lines 23-41).

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In view of this teaching, it would have been obvious to one of ordinary skill in the art to provide the device of the patented claims with a radio tag system suggested by Owen et al. for the known and expected result of providing a means recognized in the art for allowing the organ to be remotely monitored and/or data to be transferred for further use and/or control.

10. Claims 1-32 are directed to the same invention as that of claims 1-25 of commonly assigned 6,677,150. The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

### Response to Arguments

11. With respect to the rejection of Claims 1-3, 10, 21-25 and 30-32 under 35 U.S.C. 102(a) as being anticipated by Alford et al.(WO 03/024214 or US 2003/0054540), Applicant's arguments with respect to this rejection (See pages 9-10 of the response filed 1/3/2008) have been considered but are most in view of the new ground(s) of rejection over the combination of

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the references of Alford et al., McKelvey et al. and Bacchi et al. which address the newly recited

claim limitations.

12. With respect to the rejection of Claims 1-3, 10, 21-25 and 30-32 under 35 U.S.C. 102(e) as being anticipated by Alford et al.(US 6,677150), Applicant's arguments with respect to this rejection (See pages 9-10 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the references of Alford et al.,

McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.

13. With respect to the rejection of Claims 1-3 and 5-32 under 35 U.S.C. 102(a) or (e) as being anticipated by Owen et al.(US 6,673,594), Applicant's arguments with respect to this rejection (See page 10 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the references of Alford et al., McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.

14. With respect to the rejection of Claims 3-9 under 35 U.S.C. 103(a) as being unpatentable over Alford et al.(WO 03/024214 or US 2003/0054540 or US 6,677,150) in view of Olympus (JP-01-261301), Applicant's arguments with respect to this rejection (See pages 10-11 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the references of Alford et al., McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.

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15. With respect to the rejection of Claims 11-20 and 26-29 under 35 U.S.C. 103(a) as being unpatentable over Alford et al.(WO 03/024214 or US 2003/0054540 or US 6,677,150) in view of Owen et al.(US 6,673,594), Applicant's arguments with respect to this rejection (See pages 11-12 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the references of Alford et al., McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.

- 16. With respect to the rejection of Claim 4 under 35 U.S.C. 103(a) as being unpatentable over Owen et al.(US 6,673,594), Applicant's arguments with respect to this rejection (See page 12 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the references of Alford et al., McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.
- 17. With respect to the rejection of Claims 1-32 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Patent No. 6,677,150, Applicant's arguments with respect to this rejection (See page 12 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the patented claims with McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.
- 18. With respect to the comments regarding Claims 1-32 as directed to the same invention as that of claims 1-25 of commonly assigned 6,677,150 and the issue of priority under 35

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U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention which must be resolved, Applicant's arguments with respect to these comments (See page 12 of the response filed 1/3/2008) have been considered but are moot in view of the new ground(s) of rejection over the combination of the patented claims with McKelvey et al. and Bacchi et al. which address the newly recited claim limitations.

#### Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to WILLIAM H. BEISNER whose telephone number is (571)272-

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1269. The examiner can normally be reached on Tues. to Fri. and alt. Mon. from 6:15am to

3:45pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Gladys J. Corcoran can be reached on 571-272-1214. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

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